

Listing of Claims:

1. (Currently Amended) A microscopic image capture apparatus, comprising:

a low magnification optical system and a high magnification optical system;

5 a macro image capture unit which captures an image of wide-angle view of an entire observing slide by the low magnification optical system;

10 a sample image area extraction unit ~~extracting which~~ extracts a sample image ~~an~~ area including a sample image ~~from the~~ image of wide-angle view captured by the macro image capture unit from an image captured as an entire sample;

15 a height coordinate acquisition position setting unit ~~which~~ automatically ~~sets~~ ~~setting~~ a plurality of positions in an XY direction in which a height coordinate Z is acquired from ~~a~~ the sample image area extracted by said sample image area extraction unit;

a replacing unit which replaces the low magnification optical system with the high magnification optical system;

20 a coordinate read unit ~~reading which reads~~ a height coordinate of a focal point position ~~of the high magnification optical system~~ in ~~each of the position positions~~ in the

XY direction set by said height coordinate acquisition position setting unit;

25 a focal point adjusted position computation unit ~~computing~~
which computes an adjusted position of a focal point in an
arbitrary position in ~~a~~ the sample image area using height
coordinate data read by said coordinate read unit at the ~~position~~
positions set by said height coordinate acquisition position
setting unit; and

30 a sample travel unit ~~transferring~~ which transfers a height
of a sample to ~~an~~ the adjusted focal position computed by ~~a~~ the
focal point adjusted position computation unit when the sample is
horizontally traveled.

2. (Currently Amended) The apparatus according to claim 1,
wherein said coordinate read unit performs autofocus processing
with ~~a~~ the sample horizontally traveled to a set position, and
reads a height position of said sample travel unit after
5 completion of the autofocus processing as ~~a~~ the height
coordinate.

3. (Currently Amended) The apparatus according to claim 1,
wherein said height coordinate acquisition position setting unit
sets a position of a grid point including ~~a~~ the sample image in
grid points of sections obtained by dividing ~~a~~ the sample image

5 area at predetermined intervals in grid form as ~~a position~~ one of the positions in which ~~a~~ the height coordinate is obtained.

Claims 4-8 (Canceled).

9. (Currently Amended) A microscopic image capturing method for use with a microscopic image capture apparatus, said method comprising:

5 extracting a sample image ~~an~~ area including a sample image from an image of wide-angle view of an observing slide captured by a low magnification optical system ~~an image captured as an entire sample;~~

10 setting a plurality of horizontal positions in which a height coordinate Z is acquired from ~~an~~ the extracted sample image area;

reading a height coordinate which is a focal point position of a high magnification optical system in each of the set horizontal ~~position~~ positions;

15 computing an adjusted position of a focal point in an arbitrary position in ~~a~~ the sample image area using the set horizontal ~~position~~ positions and height coordinate data read in the set horizontal ~~position~~ positions; and

transferring a height of a sample to the computed adjusted focal position when ~~a~~ the sample is horizontally traveled.

Claims 10 and 11 (Canceled).